



Masefield School Science Long Term Overview (2021-2022)

End of EYFS	Key Stage 1	Lower Key Stage 2	Upper Key Stage 2
<p>Understanding the World ELG: The natural World</p> <p>Explore the natural world around them, making observations and drawing pictures of animals and plants.</p> <p>Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class.</p> <p>Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.</p>	<p>The principal focus of science teaching in Key Stage 1 is to enable pupils to experience and observe phenomena, looking more closely at the natural and humanly - constructed world around them.</p> <p>They should be encouraged to be curious and ask questions about what they notice.</p> <p>They should be helped to develop their understanding of scientific ideas by using different types of scientific enquiry to answer their own questions, including observing changes over a period of time, noticing patterns, grouping and classifying things, carrying out simple comparative tests, and finding things out using secondary sources of information.</p> <p>They should begin to use simple scientific language to talk about what they have found out and communicate their ideas to a range of audiences in a variety of ways. Most of the learning about science should be done through the use of first-hand practical</p>	<p>The principal focus of science teaching in Lower Key Stage 2 is to enable pupils to broaden their scientific view of the world around them.</p> <p>They should do this through exploring, talking about, testing and developing ideas about everyday phenomena and the relationships between living things and familiar environments, and by beginning to develop their ideas about functions, relationships and interactions.</p> <p>They should ask their own questions about what they observe and make some decisions about which types of scientific enquiry are likely to be the best ways of answering them, including observing changes over time, noticing patterns, grouping and classifying things, carrying out simple comparative and fair tests and finding things out using secondary sources of information.</p> <p>They should draw simple conclusions and use some scientific language, first,</p>	<p>The principal focus of science teaching in Upper Key Stage 2 is to enable pupils to develop a deeper understanding of a wide range of scientific ideas.</p> <p>They should do this through exploring and talking about their ideas; asking their own questions about scientific phenomena; and analysing functions, relationships and interactions more systematically.</p> <p>At Upper Key Stage 2, they should encounter more abstract ideas and begin to recognise how these ideas help them to understand and predict how the world operates.</p> <p>They should also begin to recognise that scientific ideas change and develop over time.</p> <p>They should select the most appropriate ways to answer science questions using different types of scientific enquiry, including observing changes over different periods of time, noticing patterns, grouping and classifying things,</p>



	<p>experiences, but there should also be some use of appropriate secondary sources, such as books, photographs and videos.</p> <p>‘Working scientifically’ is described separately in the programme of study, but must always be taught through and clearly related to the teaching of substantive science content in the programme of study. Throughout the notes and guidance, examples show how scientific methods and skills might be linked to specific elements of the content.</p> <p>Pupils should read and spell scientific vocabulary at a level consistent with their increasing word reading and spelling knowledge at Key Stage 1.</p>	<p>to talk about and, later, to write about what they have found out.</p> <p>‘Working scientifically’ is described separately at the beginning of the programme of study, but must always be taught through and clearly related to substantive science content in the programme of study. Throughout the notes and guidance, examples show how scientific methods and skills might be linked to specific elements of the content.</p> <p>Pupils should read and spell scientific vocabulary correctly and with confidence, using their growing word reading and spelling knowledge.</p>	<p>carrying out comparative and fair tests and finding things out using a wide range of secondary sources of information. Pupils should draw conclusions based on their data and observations, use evidence to justify their ideas, and use their scientific knowledge and understanding to explain their findings.</p> <p>‘Working and thinking scientifically’ is described separately at the beginning of the programme of study, but must always be taught through and clearly related to substantive science content in the programme of study. Throughout the notes and guidance, examples show how scientific methods and skills might be linked to specific elements of the content.</p> <p>Pupils should read, spell and pronounce scientific vocabulary correctly.</p>
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	Autumn 1	Autumn 2 (linked to English)	Spring 1	Spring 2	Summer 1	Summer 2
Year 1	Biology: Plants	Chemistry: Everyday Materials	Physics: Seasonal Changes		Biology: Animals, Including Humans	
	Working Scientifically: Explain What parts is a plant made of?	Working Scientifically: Explore Are all materials the same?	Working Scientifically: Record Is the weather the same every day?		Working Scientifically: Enquire Are all animals totally different?	
			Key Scientist Robert Fitzroy		Biography: Key Scientist Steve Irwin	
	LBQ1@masefield.bolton.sch.uk Y1 Plants LBQ Assessment	LBQ1@masefield.bolton.sch.uk Y1 Everyday Materials LBQ Assessment	LBQ1@masefield.bolton.sch.uk Y1 Seasonal Changes LBQ Assessment		LBQ1@masefield.bolton.sch.uk Y1 Animals, Including Humans LBQ Assessment	
Year 2	Chemistry: Uses of everyday materials	Biology: Living Things & their Habitats	Biology: Animals, Including Humans		Biology: Plants	
	Working Scientifically: Record What materials could be used to make a good raincoat	Working Scientifically: Explain Is everything on Earth alive?	Working Scientifically: Enquire Do all animals start off small?		Working Scientifically: Explore Do plants grow the same amount every day?	
	Biography: Key Scientist John Boyd Dunlop		Key Scientist Joan Beauchamp Procter			
	LBQ1@masefield.bolton.sch.uk Y1 Materials LBQ Assessment	LBQ1@masefield.bolton.sch.uk Y1 Living Things and Their Habitats LBQ Assessment	LBQ1@masefield.bolton.sch.uk Y1 Animals, Including Humans LBQ Assessment		LBQ1@masefield.bolton.sch.uk Y2 Plants LBQ Assessment	
Year 3	Chemistry: Rocks	Physics: Light	Biology: Plants	Biology: Animals, Including Humans	Physics: Forces and Magnets	
	Working Scientifically: Enquire Are all rocks made in the same way?	Working Scientifically: Record Why do shadows change during the day?	Working Scientifically: Explain Do all plants need exactly the same things?	Working Scientifically: Enquire How does our body move and stand up?	Working Scientifically: Explore Are all metals attracted to magnets?	



	Biography: Key Scientist Mary Anning	Key Scientist	Key Scientist Beatrix Potter	Key Scientist	Key Scientist Michael Faraday	
	LBQ Vocabulary: 10626	LBQ Vocabulary: 11262	LBQ Vocabulary: 10565 LBQ Vocabulary: 10512	LBQ Vocabulary: 10711 LBQ Vocabulary: 10596	LBQ Vocabulary: 11040	
	10669: Fossil Formation 10927: Rock properties and uses	11262: Light and Dark 11253: Shadows	11258: What Plants Need to Grow 10500: Life Cycle of a Flowering Plant	10560: Different Animal Diets 10605: Skeletons, Muscles and Joints 11498: Food and Diet: Food Groups	10894: Forces 11256: Magnets	
Year 4	Physics: Electricity	Physics: Sound	Chemistry: States of Matter	Biology: Animals, Including Humans	Biology: Living Things and Their Habitats	
	Fair Testing: Explain Does Electricity flow easily through all objects?	Fair Testing: Enquire How do instruments make different sounds?	Fair Testing: Explore Does water always melt at the same speed?	Fair Testing: Enquire Digestion investigation	Fair Testing: Record Are some animals more alike than others?	
	Key Scientist Benjamin Franklin	Key Scientist	Key Scientist	Key Scientist	Biography: Key Scientist David Attenborough	
	LBQ Vocabulary: 11034	N/A	LBQ Vocabulary: 10629	LBQ Vocabulary: 10451	LBQ Vocabulary: 10499 LBQ Vocabulary: 10550 LBQ Vocabulary: 10607	
	10893: Electrical Circuits	11251: Sound 11272: Changing the Volume of a Sound 11257: Changing the Pitch of a Sound	10638: Processes of Changing State 10642: Properties of Solids, Liquids and Gases 11250: The Water Cycle	10452: The Human Digestive System 10455: Types and Functions of Teeth	10548: Parts of a Food Chain 10496: Classification Keys and Grouping Organisms 10608: Environmental Changes in Habitats	
Year 5	Chemistry: Properties and Changes of Materials	Physics: Forces	Biology: Animals including humans	Biology: Living Things and Their Habitat	Physics: Earth and Space	
	Fair Testing: Enquire Is it possible to separate materials?	Fair Testing: Explore How do parachutes work?	Fair Testing: Explain	Fair Testing: Explain If life has existed for billions of years, why are there still people alive today?	Fair Testing: Record What shape is the moon and does it change?	
	Key Scientist Marie Curie	Key Scientist	Key Scientist	Key Scientist	Biography: Key Scientist Galileo Galilei	
	LBQ Vocabulary: 10888	N/A	N/A	LBQ Vocabulary: 10577 LBQ Vocabulary: 10492	LBQ Vocabulary: 10653	



	10666: Irreversible Changes (Levels 1-2 Q1-13) 10662: Separating Solutions (Levels 1-2 Q1-16) 10698: Dissolving (Q1-19) 10661: Reversible changes (Level 1 Q1-8)	11255: Friction 10171: Gravity and the Difference Between Mass and Weight	10575: Life Cycle of a Human	10570: Comparing Life Cycle of Different Animals 11259: Parts of a Flower 10557: Plant Reproduction	10652: Earth, Sun and Moon 11261: Our Solar System 10654: Relative Movement of the Moon and Earth	
Year 6	Biology: Animals, Including Humans	Biology: Evolution and Inheritance	Physics: Electricity		Physics: Light	Biology: Living Things and Their Habitats
	Fair Testing: Explore Is our heart rate always the same?	Fair Testing: Explain Why do species of animals look different?	Fair Testing: Enquire Is it possible to change how bright a bulb is?		Fair Testing: Enquire Why can I hear round corners but not see round corners?	Fair Testing: Record Classification
		Biography: Key Scientist Charles Darwin Jane Goodall			Key Scientist Isaac Newton	Key Scientist Carl Linnaeus
	LBQ Vocabulary: 10630	LBQ Vocabulary: 10627	LBQ Vocabulary: 10891		LBQ Vocabulary: 11254	LBQ Vocabulary: 10551
	11263: The human circulatory system 11264: The heart and the blood	10648: Evolution	11045: Cells and Circuits		11214: How Light Travels and How We See	10480: Grouping Organisms: Plants, Animals and Microorganisms

Notes:

Years 1 and 2 LBQ Assessments: Use generic account (LBQ1@masefield.bolton.sch.uk)

Years 3, 4, 5 and 6 LBQ Assessment: Use class accounts

TAPS Focussed Assessment Plans: <https://pstt.org.uk/resources/curriculum-materials/assessment>